Regional Economic Development

Although the main purpose of BQRC is to study the relationship among job centers, transportation, and housing with the aim of reducing travel demand, the possible implementation of its findings could depend on local economic development strategies and programs.

An issue about economic development in the Phoenix MSA is that the region's basic economy is not as strong as it should be, and this poses a risk for the future of the region's well being. *To develop a healthy economic base will involve the actions of many, including local governments – cities, towns, counties, and Indian Communities – and what they do in creating and developing their own job centers.*

This short paper lays out some of the issues regarding regional economic development and the health of our economic base.

- Recent mismatch between population growth and jobs growth
- How a region's economy grows
- The Phoenix MSA's economic base
- Jobs per household by economic base function, Phoenix MSA compared to other metro regions.

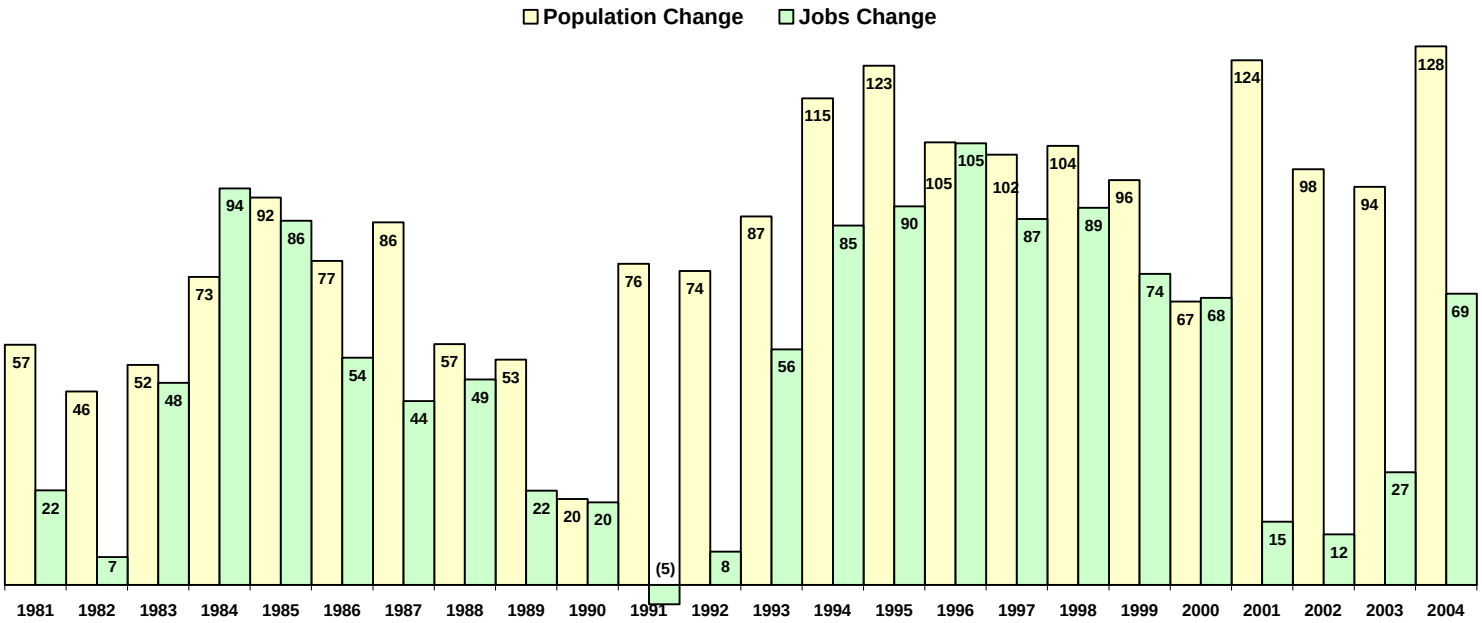
Disconnect Between Population and Jobs Growth

Chart 1 below illustrates annual change in population and jobs for Maricopa County over a 23-year period, 1981 to 2004. The history is that population growth continues even in economic recessions. This occurred in 1982, in 1990-93, and again in the recent past from 2001 through 2003. Another notable characteristic is that annual population change increased substantially in the 1990's, compared to earlier history. These higher levels have continued into the 2000's, and are the major driver for recent hyperactivity in housing starts.

On the other hand, job growth has recently not matched annual population change. It is clear that growth during much of the 1990's had a strong economic foundation, since there was a sustained period of high job growth. Job growth began to slow in 1999 and 2000, and then dropped substantially from 2001 through 2003. Although there was a return to a more normal level in 2004 (as estimated by Global Insight)[1], the ratio between population change and job change is still substantially different than history.

It is not sustainable to have such large population growth with such low employment growth. If annual population increase continues around 100,000 persons or higher, like the shift that occurred since the 1990's, then jobs growth in our region must sooner or later match it. Else, population growth will slow.

Chart 1
Population & Jobs Change
Maricopa County, 1981-2004
Source: US Bureau of Census, US Bureau of Economic Analysis & US Department of Labor



[1] Please note that the data for the year 2004 is from different sources than the rest of the time series. For 2004, job growth is taken from Global Insight, as opposed to BEA. The Global Insight data measures wage and salary jobs; BEA includes partners and proprietors. For 2004, population growth is taken from the Arizona Department of Economic Security, not the US Census Bureau.

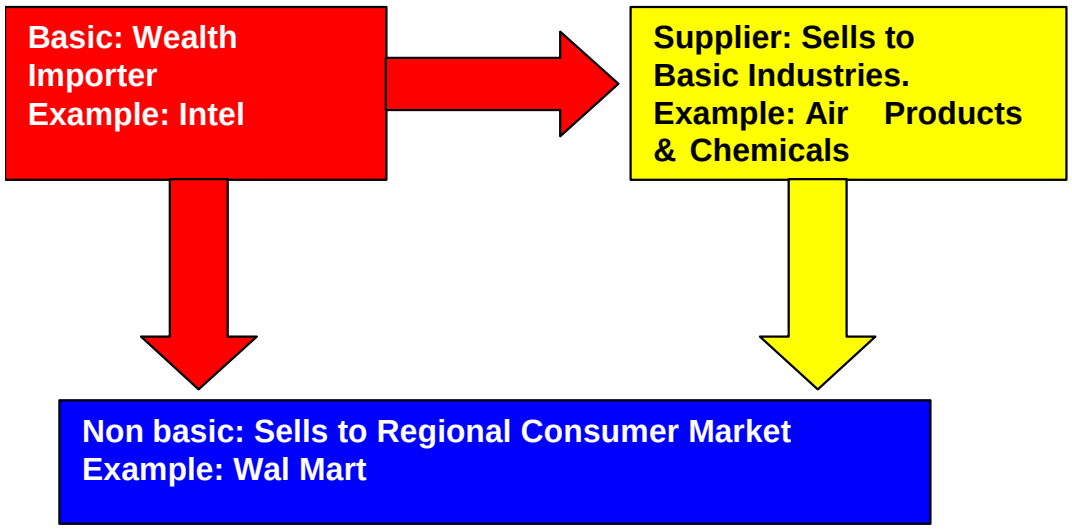
How Does A Region's Economy Grow?

Metropolitan regions – unlike nations – do not have legal borders for which imports can be regulated. Thus, the economies of regions like Metro Phoenix are completely opened to the free market. The effect is that regional economies will specialize in goods and services that they have comparative advantage in producing – either through lower costs or higher quality. Moreover, in the global economy, there is greater free trade and capital investment than for most of the 20th century. A wide body of research agrees that in today's global economy, metropolitan regions are the engines of economic growth.

In this free market, regional economies like ours contain three major types of industry (Chart 2).

Chart 2

Concept of Economic Base



- *Basic industries* are the specialties of a region's economy. Basic industries bring new wealth into the region by exporting their specialized goods and services to outside markets, either in other parts of the United States or internationally. Basic industries are the economic foundations of a region's economy. They support the rest of the economy, and the quality of their jobs makes the difference between a high-wage economy or not. In the MAG Region, with our historic comparative advantage in semiconductor manufacturing, Intel is an example of a basic industry business.

- *Supplier industries* provide business-to-business goods and services to all other industries in a region's economy. They are frequently tied to the region's basic industry specialties. In the MAG Region, Air Products & Chemicals is an example of a supplier business linked to our semiconductor industry.

- *Non-basic industries* sell to a region's consumers. They create no new wealth, instead providing goods and services to employees of basic industries, supplier industries, and non-basic industries. Wal-Mart is a good example of a non-basic business.

The health and quality of a region's economy depends on its basic and supplier industries. Historically, a comparative advantage of the MAG Region has been its low costs for business

investment and production. However, with less regulated trade on a national basis, the global economy is finding much lower-cost business operating environments than any United States region can possibly match. This, along with continual and increased technological advances, is creating a major transformation in the United States and other advanced world regions from a post-industrial service economy to a knowledge-based economy.

Recent research shows that the MAG Region has already evolved, and will continue to evolve, into a region for which quality is as important a factor as low cost. In order to keep up with economic and technological change, and a continually shifting competitive environment both in the United States and globally, it is necessary for the MAG Region's economy to continue a transition of comparative advantage based on quality, not merely low costs.

The Phoenix MSA's Economic Base

The Greater Phoenix Economic Council (GPEC) and MAG have jointly defined seventeen "industry clusters" that comprise our economy. These same industry clusters are being studied in the BQRC project. Of these, five are high-wage basic clusters that are at the core of GPEC's regional economic development strategy, eight are ""other basic"" clusters, and four are non-basic clusters.

Chart 3 shows the number of jobs by place of work for each of these clusters in 2004. This is a snapshot of the Metro Phoenix economic base. There are a few key points:

- Regional market-serving clusters – that is, non-basic industries – by far employ the largest numbers. These clusters are actually economically supported by all of the other basic/supplier industries.

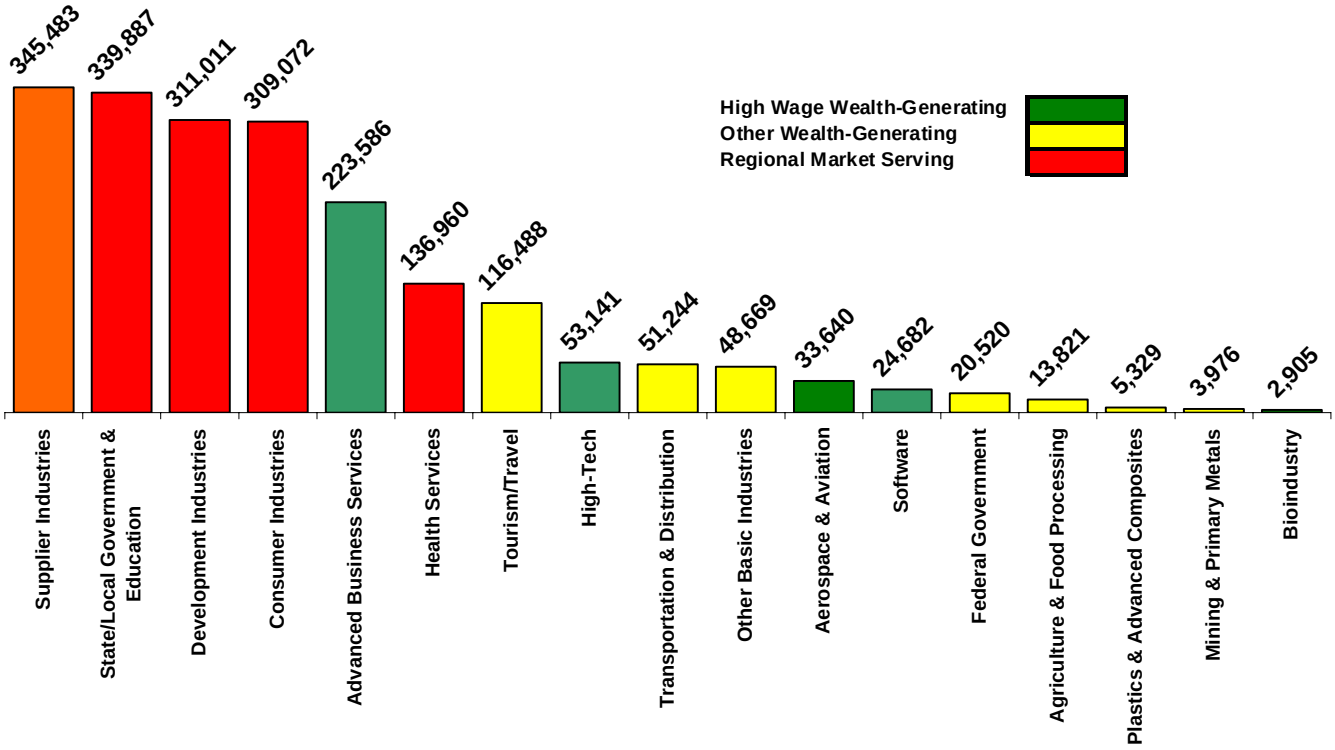
- Of the five high-wage clusters that are targeted in the current regional economic development strategy, by far the largest number of jobs are in advanced business services – primarily financial, professional, and technical services, but also including such industries as call centers and back office centers. The technology-based clusters that have historically driven the metro Phoenix economic base – high tech electronics and aerospace – are now relatively small in size. The other technology-based clusters – software and bioindustry – are nascent, really just getting started.

- Of the remaining basic industry clusters, the largest employer is tourism, which is also the lowest-paying cluster. In fact, the lowest-paying clusters – tourism and consumer industries (which contain retail) – are the two clusters that create the lion's share of government revenues, both for the state and for cities and towns. This creates a contradiction for economic development goals.

Chart 3

Full and Part-Time Jobs by Industry Cluster
MAG Region MSA, 2004
(Jobs)

Source: Global Insight

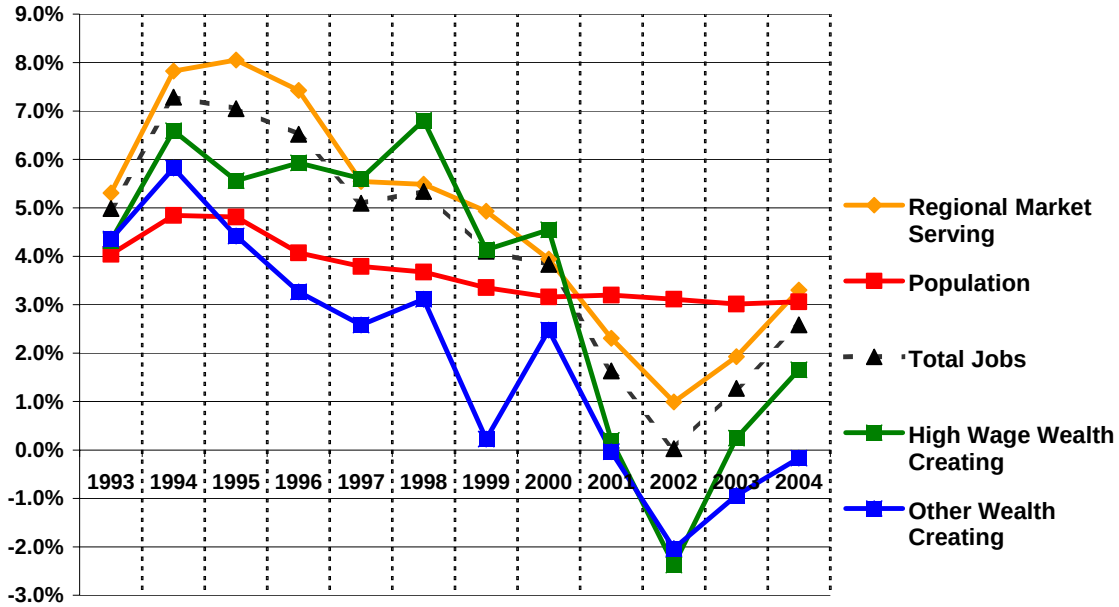


The next graph (Chart 4) illustrates the relative annual growth among population and each of the broad components of Metro Phoenix's economic base for 12 years, from 1993 through 2004.

- Generally, during the 2000's, population has outpaced jobs in each component.
- For most of this period, regional market-serving clusters – non-basic industries supported by the other two components – has grown the fastest.
- Basic industry job growth declined substantially in 2001 and 2002, and began a slow comeback during 2003 and 2004, though not nearly matching previous growth rates. The high wage clusters grew faster than other basic clusters, primarily due to the growth of advanced business services.

Chart 4

Relative Growth -- Population & Jobs by Economic Base Function
Phoenix-Mesa-Scottsdale MSA, 1993 to 2004
(Annual Percent Change)
Source: Global Insight, November 2004



The next graph (Chart 5) hones in on which clusters are behind the job growth that occurred recently, from 2000 to 2004. The picture that emerges is the distinct possibility that more job growth is occurring as a result of population growth, and that the health of the region's economic base should be of concern.

- First, the greatest job gains by far were in regional market-serving, non-basic industry clusters – primarily those supported by growth itself and by the consumer purchases of expanding population. The largest growth was in development industries – construction, real estate, construction suppliers, and utilities that provide infrastructure for development. The next three clusters are all those that provide consumer services – state/local government and education, health services, and consumer industries. In the long run, these clusters are not likely to continue growing based on population growth alone.

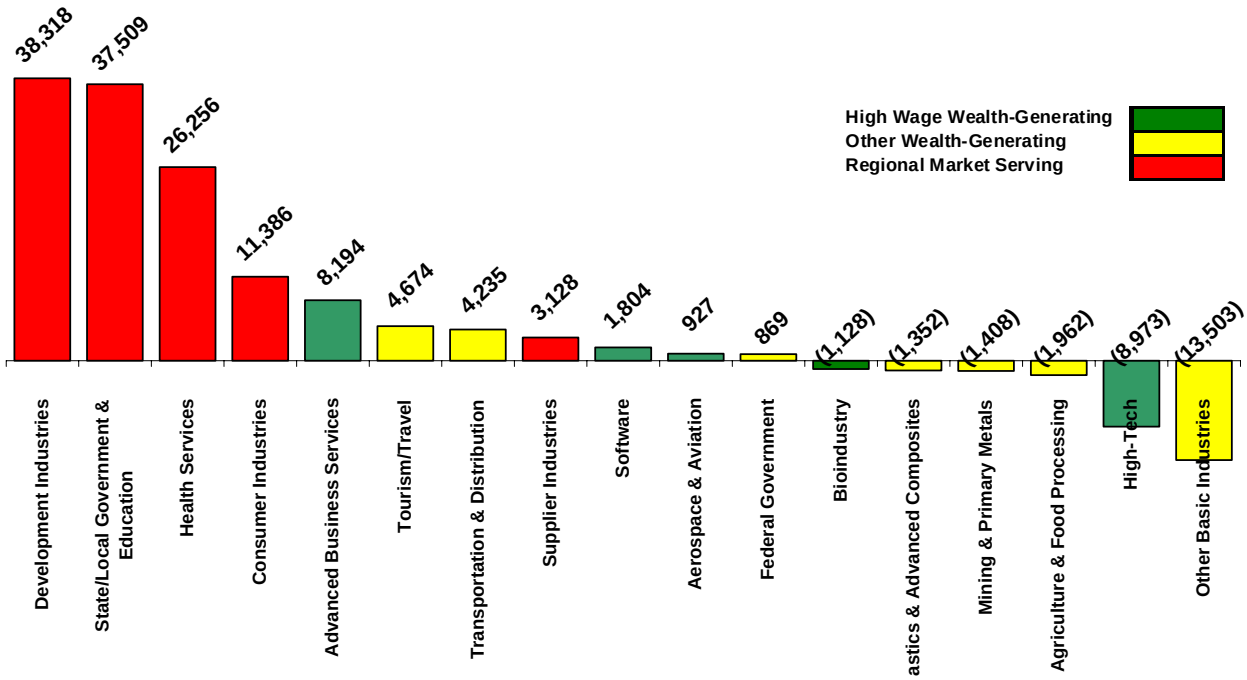
- Of wealth-generating, basic industry clusters, growth was led by a relatively modest increase in advanced business services jobs, followed by tourism/travel, transportation & distribution, software, aerospace & aviation (principally aviation), and federal government. Most of the job increases in these growing basic industry clusters was minimal.

- All other basic industries – six clusters -- actually lost jobs during the 2000's. This includes high tech electronics – one of the mainstays of the region's economic base since the 1950's. Moreover, though hidden in the data, the growth of aerospace industries – another mainstay since the 1950"s – also declined.

It is difficult to escape the conclusion that the region's economic base needs to be strengthened. *There is a role to be played by local governments in helping the region's economic base to grow, by planning job centers for locating economic base clusters, and by economic development with actions that specifically grow employment-generating industries as well as revenue-generating industries.*

Chart 5

Change in Full and Part-Time Jobs by Industry Cluster
MAG Region MSA, 2000 to 2004
(Jobs)
Source: Global Insight



Jobs per Household

In thinking of job centers, an important planning consideration for a local area is the proportion between population and jobs that the agency wants to achieve. This is commonly measured as jobs per household, or jobs per housing/dwelling unit.

The next series of graphs provide information for local planning guidelines. They are the Metro Phoenix average jobs per household. They provide some new information, in that total, basic and non-basic job ratios are shown. They are not meant to provide strict rules, but are simply comparative information that sets some parameters within which to develop local policies.

The following graph (Chart 6) shows the historic ratio between jobs and households for Metro Phoenix from 1993 through 2005. As the data are taken from Global Insight, the year 2005 is based on their projection for that year.

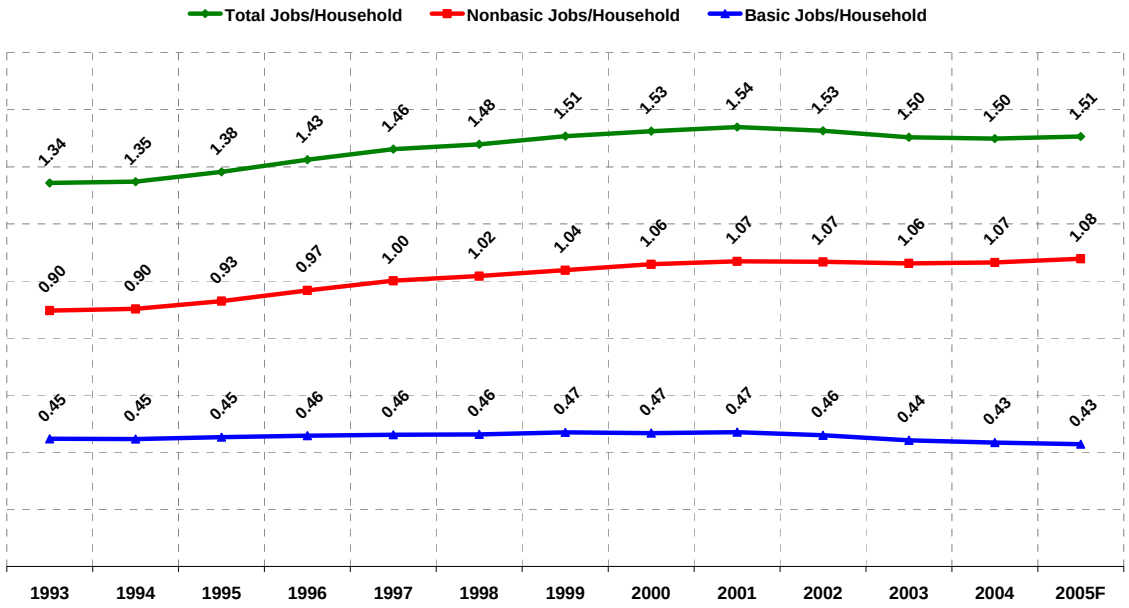
- Looking at the historic data, there occurred an increase in the ratio for total jobs, which is presently about 1.5 jobs per household.

- As no surprise, non-basic jobs are the largest component. The ratio also gradually increased, and is presently 1.07 jobs per household.

- Unlike the other two concepts, the ratio of basic jobs per household has gradually *declined.* It presently stands at 0.43 jobs per household.

Chart 6

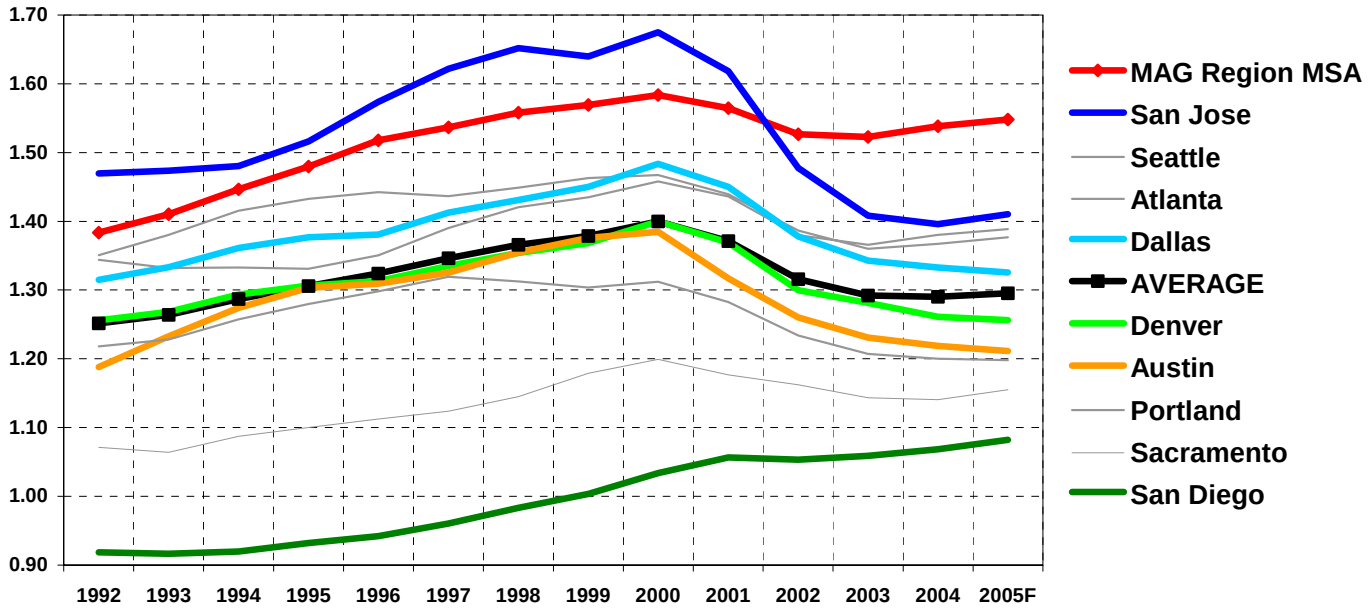
Jobs Per Household by Economic Base Function
MAG Region MSA, 1993-2005
Source: Global Insight, November 2004 Projections



How does Metro Phoenix stand relative to other metro regions? The next series of graphs provides that comparison.

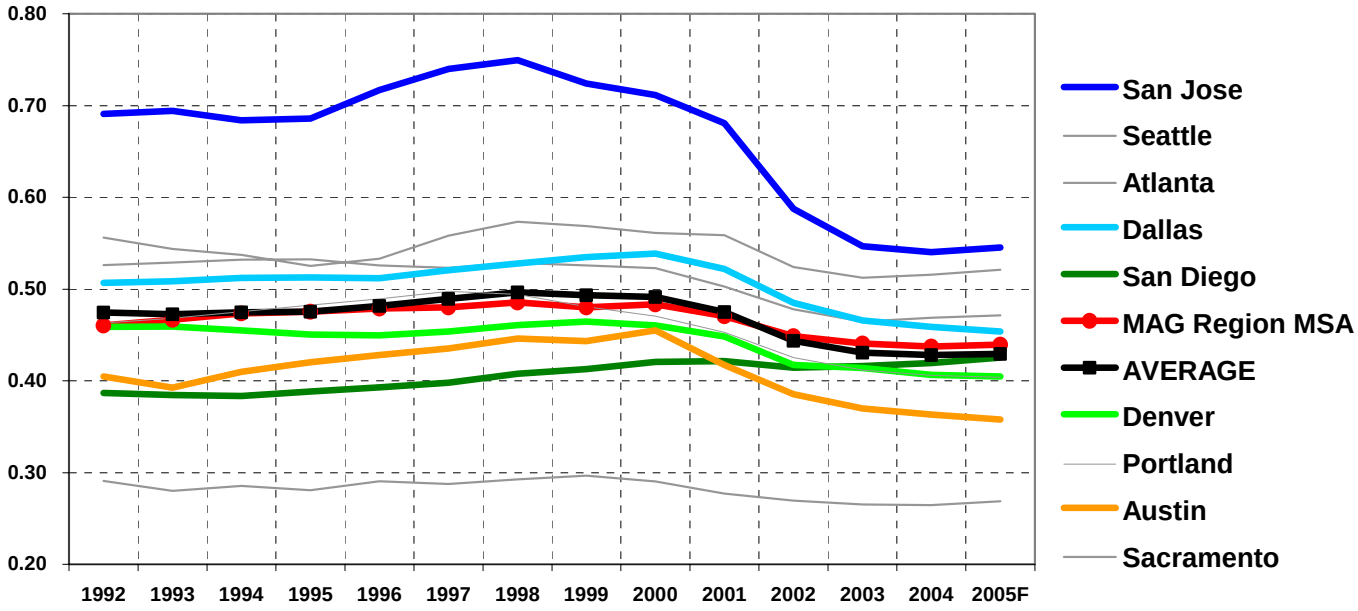
For total jobs (Chart 7), the Phoenix MSA presently has the highest ratio of jobs-per-household among comparative areas. Until the recession of 2001, the San Jose region had the highest, but it has lost much of its economic base since. At greater than 1.5 jobs per household, Metro Phoenix is the leader by 0.1 jobs more than the next tier of comparatives, and it is 0.2 jobs higher than the 10-region average.

Chart 7
Total Jobs Per Household
MAG Region MSA & Comparative Regions, 1992-2005
Source: Global Insight



Segmenting total jobs into its basic and non-basic components is highly revealing. Chart 8 shows trends in basic jobs-per-household. Here, Metro Phoenix tracks the 10-city average quite closely. It has a lower basic jobs-to-household ratio than do metro San Jose, Seattle, Atlanta, Dallas, and San Diego.

Chart 8
Basic Jobs Per Household
MAG Region MSA & Comparative Regions, 1992-2009
Source: Global Insight



Finally, looking at non-basic jobs-per household, the Phoenix MSA is much higher than other comparative regions. With a ratio exceeding 1.1 non-basic jobs-per-household, it is 0.2 jobs greater than the next set of regions, and in fact pulls up the 10-region average.

Chart 9

Nonbasic Jobs Per Household
MAG Region MSA & Comparative Regions, 1992-2009
Source: Global Insight